

APPLICANTS' ARGUMENTS FOR PATENTABILITY

Claim 6 (Previously Added; Currently Amended)

As amended, claim 6 specifies that the wire disposed in the passageway providing a flow conduit is a **straight bare platinum** wire, for **heating and monitoring temperature** of the fluid flowing through the passageway, and for **catalyzing chemical reactions** that are catalyzed by platinum. (Lines 3 – 5.)

It is submitted that neither the Cornella reference specifically cited by the Examiner in rejecting claims 6 – 8 nor any of the other prior art of record discloses, suggests, or in any way makes obvious this **dual** function of the bare platinum wire.

With regard to the Cornella reference, Cornella actually teaches away from such duality of function by teaching that one of the primary objects of the invention resides in the provision of a deicer that is **relatively inexpensive to produce**. (Col. 1, l. 22 – 25.) Clearly, platinum would not be a metal which Cornella would choose for the production of his water-pipe deicer.

With regard to the patent to Thweatt, Jr., it is submitted that the disclosed apparatus is primarily intended for heating water to be dispensed to a spa or hot tub (FIG. 1; col. 2, l. 54 – 61). Accordingly, the same consideration of economical fabrication that applies to the Cornella reference applies to this reference also.

Regarding the patent to Moe, it is submitted that, **even if platinum is chosen as the metal, the disclosed apparatus is incapable of performing the dual functionality recited in claim 6, because the disclosed apparatus lacks a passageway that provides a flow conduit.**

Regarding the other prior art, in general, either the apparatus or devices disclosed thereby are intended and constructed for the type of non-analytical objectives exemplified by Cornella, Thweatt, Jr., and Moe, as discussed above, or they are intended and constructed for instrumental analysis, in which case they are incapable of performing the temperature-control function. In no case, so far as applicants are aware, is there any evidence or even a suggestion of apparatus intended, constructed, or capable of

performing **both** functions as claimed viz., temperature control **and** chemical analysis by the catalysis of a chemical reaction. The present invention is, to the knowledge of both applicants, unprecedented, unanticipated, and unique in this very important respect.

Moreover, a further important distinguishing characteristic of the present invention is the disposition of a **straight** wire in the passageway. Clearly, a **coiled** wire of the same diameter requires considerably more space and thereby necessitates a significantly greater diameter of the passageway. The claim requires that the wire be coaxially disposed in the passageway, in order **to provide a minimum operating volume**.

The present invention has important and practical advantages for flow-injection analysis, as illustrated by Examples I and II, paragraphs 0018/0019 and 0019/0020, respectively. In such analysis, a carrier liquid flows through the analyzer, and an analyte is injected into the carrier stream. Analyte can be of limited supply, therefore precious; only a small amount of sample is usually injected. Moreover, it is vital to keep the dispersion of the injected sample at a low level. Dispersion increases directly as the square of the diameter of the conduit. Hence, the tube through which the sample flows must be small in diameter. Indeed, anything larger than two millimeters in diameter is practically useless in such applications. **A straight wire coaxially disposed in the passageway provides a minimum operating volume.**

Accordingly, it is respectfully submitted that the claimed apparatus **does structurally differentiate** said apparatus from the prior art of record.

Reconsideration, entry of the requested amendments, withdrawal of the rejection, and allowance of claim 6 as currently amended are respectfully requested.

SUMMARY, CONCLUSIONS, AND PETITION

Applicants respectfully request entry of the amendment of claim 6. If the claim is so amended, it is submitted that, with the cancellation of claims 7 and 8, in view of the arguments presented herein, the application is in condition for allowance.

Reconsideration, withdrawal of the rejection, and allowance of the application are respectfully requested.

Respectfully submitted

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